



**CITY OF LODI
COUNCIL COMMUNICATION**

AGENDA TITLE: Approve **Request** for Proposals for **Services to Perform Inspection**, Adjustments, and Maintenance Tests of Four Power Transformers and Load Tap Changers in Henning and Industrial Substations (EUD)

MEETING DATE: April 18, 2007

PREPARED BY **Electric Utility** Director

RECOMMENDED ACTION: Approve request for proposals for services to perform inspection, adjustments, and maintenance tests of four power transformers and load tap changers in Henning and Industrial Substations.

BACKGROUND INFORMATION: There are **two** power transformers installed in the Industrial Substation and another two power transformers installed in Henning Substation. This equipment has been in operation since 1975 and 1990 for Henning and Industrial respectively. The last maintenance tests were conducted on these transformers in 2003.

A complete maintenance test on power transformers rated 15MVA through 35MVA is typically performed at least every **two** years. The four transformers addressed herein are rated at 31.25MVA each.

It is four years since complete maintenance tests were performed on these transformers. Staff recommends the approval of this request in order to complete this task before the arrival of summer seasonal load.

FISCAL IMPACT: None. Additional monies will be transferred from other object codes to Object Code 7323 within Account No. 160652.

FUNDING AVAILABLE: Account No. 160652 = \$44,500


George F. Morrow
Electric Utility Director

PREPARED BY: Demy Bucaneg, Jr., P.E., Manager, Engineering & Operations

GFM/DB/1st

Attachment

APPROVED:



Blair King, City Manager

CITY COUNCIL

BOB JOHNSON, Mayor
JOANNE MOUNCE,
Mayor Pro Tempore
LARRY D. HANSEN
SUSAN HITCHCOCK
PHIL KATZAKIAN

CITY OF LODI

ELECTRIC UTILITY DEPARTMENT
GEORGE F. MORROW, DIRECTOR

1331 S HAM LANE
LODI, CALIFORNIA 95242-3995
(209) 333-6762
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BLAIR KING, City Manager

RANDI JOHL, City Clerk

D. STEPHEN SCHWABAUER,
City Attorney

March 29, 2007

To Prospective Bidders

Subject: Request for Proposal (RFP) to Conduct Inspection, Adjustments and Maintenance Tests on Four Power Transformers with Load Tap Changers in Henning and Industrial Substations

Sealed proposals will be received by the Engineering & Operations Manager, 1331 South Ham Lane, Lodi, California 95242 on:

April 25, 2007, at 400 p.m.

Please submit detailed proposal and your standard service agreement for review and approval. If there are any questions regarding this request for proposal, you may contact me at (209) 333-6811, or by email to dbucaneg@lodielectric.com or Allen Aadland at (209) 333-6779.

Demy Bucaneg, Jr. -PE
Manager, Engineering & Operations Division

INTRODUCTION

The City of Lodi Electric Utility Department (EUD) is inviting qualified firms to submit proposals to provide inspection, adjustments and maintenance ~~services~~ on four power transformers with load tap changers (LTC). Two transformers are located in Henning Substation and the other two transformers are in the Industrial Substation facility. The bidder acknowledges that the maintenance work shall be performed in the vicinity of and around energized lines, bus and equipment.

SCOPE OF WORK

Successful bidder shall provide **personnel**, **test** equipment, materials and supplies to perform the following scope of work:

1. Transformer Inspection and Maintenance
 - a. Mobilize personnel and equipment to EUD substation sites
 - b. Verify proper switching and grounding of **power** equipment
 - c. Visual inspection of power transformer and associated equipment
 - i. Check for oil and nitrogen leaks
 - ii. Check tank pressure and operation of nitrogen systems
 - iii. Check condition of paint
 - iv. Check for broken and damaged components
 1. Bushings
 2. Arresters
 3. Conduit and junction boxes
 4. Control cabinets
 5. External power transformer indicators and auxiliaries
 - d. Conduct LTC inspection
 - i. Collect oil sample for analysis
 - ii. Check LTC breather
 - iii. Visual inspection for leaks and damage
 - iv. Check liquid level gage for operation and proper level
 - v. Check operations counter and record number of operations
 - vi. Check proper electrical and mechanical operation of LTC
 - vii. Verify operation of position indicator
 - viii. Check control cabinet and motor operator
 1. For cleanliness and moisture
 2. Wiring for cracked or damaged insulation, overheating and loose connection
 3. Operation of panel heaters
 - ix. Provide LTC contact lease kit, if needed (**Note:** Specify if this is an extra fee)
 - x. Drain and store oil from LTC compartment
 - xi. Rinse and clean switch compartment
 - xii. Check wear and alignment of all fixed and moving contacts
 - xiii. Replace any worn parts (Note: Specify cost if this is extra)
 - xiv. Operate LTC to verify proper mechanical timing and alignment on all taps
 - xv. Check and verify:
 1. Transition resistors
 2. barrier boards, seal and connections between main tank and LTC Compartment
 3. condition of door gasket
 - xvi. Close and bolt LTC compartment door
 - xvii. Refill oil through pump/filter (Note: Specify ~~cost~~ should new oil is needed)
 - xviii. Check for oil leaks and proper oil level

2. Power Transformer Tests
 - a. Transformer turns ratio
 - b. Power factor of winding insulation
 - c. Winding insulation resistance
 - d. General functional check of controls, gages, cooling, LTC, etc
 - e. Oil sample for DGA, oil quality and oil dielectric strength test
3. Clean-up and demobilize
4. Deliverables
 - a. Complete inspection report
 - b. Complete test results
 - c. Analysis and recommendations
 - d. Replacement parts and materials as needed

5. Performance and Schedule

The bidder acknowledges that the maintenance work shall be performed in the vicinity of and around energized lines, bus and equipment. The bidder also acknowledges that EUD will be performing normal maintenance, inspections and operations, as necessary, within the substation facility during the transformer inspection/maintenance period to maintain power supply to the City. It is estimated that the above scope of work will take approximately two (2) days per transformer to complete. All inspection tasks and tests must be completed within May 18, 2007 to June 4, 2007. Saturday and Sunday shutdown for testing will be the preferred option in performing this activity. EUD reserves the right to cancel any scheduled maintenance work when electric power capacity is needed to serve the load.

SELECTION PROCESS

Proposals will be reviewed by the Engineering & Operations Manager and the Electric Utility Director. Complete proposals will be evaluated based on the information submitted. This will permit a recommendation to the City Council for contract award.

REJECTION OF PROPOSALS

The City of Lodi Electric Utility Department reserves the right to reject any and all proposals and to solicit new proposals with modified terms and conditions. It also reserves the right to waive any informality in connection with the proposals.

GENERAL PROVISIONS

5-409 Responsibility for Damages The City of Lodi, its elected and appointed boards, commissions, officers, agents and employees shall not accept responsibility for any loss or damages that occur during the ~~scope~~ of work to the work or any part thereof; or for any material or equipment used in performing the work; or for injury or damage to any person or persons, either work personnel or the public; for damage to adjoining property arising from or related to Contractor's negligence or willful misconduct during the progress of the work or any time before final acceptance.

The Contractor ~~shall~~ indemnify and save harmless the City of Lodi, its elected and appointed boards, commissions, officers, agents and employees from any suits, claims or actions brought by any person or persons for or on account of any injuries or damages sustained or arising out of Contractor's negligent acts, errors or omissions in the performance of the work or in consequence

thereof. The City of Lodi may retain as much of the money due the Contractor as shall be considered necessary until disposition has been made of such suits or claims for damages as aforesaid.

5-413 Insurance Requirements for Contractor The Contractor shall provide proof of insurance to be maintained during the life of this contract as listed under General Liability and Automobile Liability coverage listed below. These insurance policies shall protect the Contractor and any subcontractor performing work covered by this contract from claims for damages for personal injury, including accidental death, as well as from claims For property damages, which may arise from Contractor's operations under this contract, whether such operations be by Contractor or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amount of such insurance shall be as follows:

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| 1. <u>COMMERCIAL GENERAL LIABILITY LIABILITY</u>

Per Occurrence Limits
\$1,000,000 Property Damage

Personal & Adv Injury
\$2,000,000 General Aggregate | 2. <u>COMPREHENSIVE AUTOMOBILE</u>

\$1,000,000 Combined Single |
|--|---|

NOTE: Contractor agrees and stipulates that any insurance coverage provided to the City of Lodi shall provide for a claims period following termination of coverage which is at least consistent with the claims period or statutes of limitations found in the California Toft Claims Act (California Government Code Sections 810 et seq.).

A copy of the certificate of insurance with the following endorsements shall be furnished to the City of Lodi:

(a) Additiinal Named Insured Endorsement with Primary Wording

Such insurance as is afforded by this policy shall also apply to the City of Lodi, its elected and appointed Boards, Commissions, Officers, Agents and Employees as additional named insured, insofar as work performed by the insured under written contract with the City of Lodi.

(This endorsement shall be on a form furnished to the City of Lodi and shall be included with Contractor's policies.)

Wording: Such insurance as is afforded by the endorsement for the Additional Insureds shall apply as primary insurance. Any other insurance maintained by the City of Lodi or its officers and employees shall be excess only and not contributing with the insurance afforded by this endorsement.

(c) Severability of Interest Clause

The term "insured" is used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limit of the company's liability

(d) Notice of Cancellation or Chanae in Coverage Endorsement

This policy may not be canceled nor the coverage reduced by the company without 30 days' prior written notice of such cancellation or reduction in coverage to the City Attorney, City of Lodi, P.O. Box 3006, Lodi, CA 95241.

(e) Contractor agrees and stipulates that any insurance coverage provided to the City of Lodi shall provide for a claims period following termination of coverage which is at least consistent with the claims period or statutes of limitations found in the California Toft Claims

Act (California Government Code Section 810 et seq.).

"Claims made" coverage requiring the insureds to give notice of any potential liability during a time period shorter than that found in the Tort Claims Act shall be unacceptable.

5414 Workers' Compensation Insurance The Contractor shall provide proof of and maintain during the life of this contract, Worker's Compensation Insurance for all Contractor's employees employed at the site of the project and, if any work is Subcontracted, Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each subcontractor to provide insurance for the protection of said employees. This policy may not be canceled nor the coverage reduced by the company without 30 days' prior written notice of such cancellation or reduction in coverage to the City Attorney, City of Lodi. P.O. Box 3006, Lodi, CA 95241.

MAILING LIST

Geo. E. Honn Company, Inc.
853 Cotting Court, Suite A
Vacaville, CA 95688
Tel. No. (707) 455-0241
Fax No. (707) 455-0245
Attention: James Magolske

Waukesha Electric Systems, Inc.
do Isberg Nott Company
4725 First Street, Suite 265
Pleasanton, CA 94566
Tel. No. (925) 426-4718
Fax No. (925) 426-0323
Attention: Karie Spowart or Steve Kanty

Western Utilities Transformer Service
1010 N. Plaza Drive
Visalia, CA 93291
Tel. No. (559) 651-0141
Fax NO. (559) 651-0143
Attention: Tony Borba